

ABSTRACT OF THE DISCLOSURE

A solid composite polymer electrolyte contains a general amorphous branched polymer having recurrent units, each of which includes a backbone chain and
5 at least a side chain linked to the backbone chain and containing at least one coordination potential atom, an amphoteric metal salt dispersed in the branched polymer and forming Lewis acid-base interactions with the side chains, and an amphoteric
10 Lewis acid-base ceramic filler dispersed in the branched polymer and forming Lewis acid-base interactions with the side chains and the metal salt.